

### Detailed Action

This action is responsive to the communication filed on 3/23/2011.

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Rickenbrode on 7/25/2011; the authorized amendments are stated below:

2. In claim 1, lines 1 and 2 change the following wording:

"a noiseless wireless communication channel" to

**---a wireless communication channel---**

3. In claim 1, line 7 change the following wording:

"perfectly reconstructing the received signal" to

**---reconstructing the received signal---**

4. Replace claim 28 with the following:

28. A non-transitory computer-readable medium on which is recorded a control program for a data processor, the computer-readable medium comprising instructions for causing the data processor to:

sample a signal  $(y(t))$  sent over a wireless communication channel with a sampling frequency  $(f_s)$  lower than the sampling frequency given by the Shannon theorem, lower than the chip rate  $(1/T_c)$  of said signal  $(y(t))$ , but greater than the rate of innovation  $(\rho)$  of said signal  $(y(t))$ , for generating a set of sampled values  $(y(nT_s))$  and

reconstruct the received signal  $(y(t))$  using the set of sampled values  $(y(nT_s))$ .

5. In claim 34, lines 1 and 2 change the following wording:

"a noiseless wireless communication channel" to

**---a wireless communication channel---**

6. In claim 34, lines 6 and 7 change the following wording:

"perfectly reconstruct the received signal" to

**---reconstruct the received signal---**

7. In claim 61, lines 2 and 3 change the following wording:

"a noiseless wireless communication channel" to

**---a wireless communication channel---**

8. In claim 61, lines 8 and 9 change the following wording:  
"perfectly reconstructing the received signal" to  
**---reconstructing the received signal---**
9. Replace claim 62 with the following:
62. A mobile station for wireless communication, comprising:  
at least one antenna; and  
a receiver configured to receive a signal  $(y(t))$  over a wireless communication channel via the at least one antenna, and sample the signal  $(y(t))$  with a sampling frequency  $(f_s)$  lower than the sampling frequency given by the Shannon theorem, lower than the chip rate  $(1/T_c)$  of said received signal  $(y(t))$ , but greater than the rate of innovation  $(\rho)$  of said received signal  $(y(t))$ , for generating a set of sampled values  $(y(nT_s))$  and to reconstruct the received signal  $(y(t))$  using the set of sampled values  $(y(nT_s))$ .
10. In claim 64, lines 1 and 2 change the following wording:  
"a noiseless wireless communication channel" to  
**---a wireless communication channel---**
11. In claim 64, in both line 7 and line 8 change the following wording:  
"perfectly reconstructing" to

**---reconstructing---**

12. In claim 65, lines 1 and 2 change the following wording:

"a noiseless wireless communication channel" to

**---a wireless communication channel---**

13. In claim 65, in both line 9 and line 10 change the following wording:

"perfectly reconstructing" to

**---reconstructing---**

14. In claim 66, lines 1 and 2 change the following wording:

"a noiseless wireless communication channel" to

**---a wireless communication channel---**

15. In claim 66, in both line 7 and line 8 change the following wording:

"perfectly reconstructing" to

**---reconstructing---**

16. Cancel claims 67, 68, and 69.

***Allowable Subject Matter***

17. Claims 1-62, 64-66, and 70 are allowed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES M. PEREZ whose telephone number is (571)270-3231. The examiner can normally be reached on Monday through Friday: 10am to 6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner, Art Unit 2611  
7/25/2011

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Application/Control Number: 10/680,839

Page 7

Art Unit: 2611

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